REMARKS/ARGUMENTS

Prior to this Amendment, claims 1-4, 6-12, 14-22, 33-40, 43, 62-65, 67-80, 85, 86, 91, and 94 were pending in the application. No claim amendments are presented with this Amendment, with the pending claims presented in this Amendment in their current state to simplify review by the Examiner.

On August 4, 2005, the Applicants filed a Notice of Appeal including a Pre-Appeal Brief Request for Review. In response, prosecution was reopened with the Examiner performing an additional search resulting in the rejection of all claims on new grounds based on previously-cited U.S. Pat. No. 6,477,585 ("Cohen") and on newly-cited U.S. Pat. No. 6,658,487 ("Smith"). Applicants filed two amendments and an Appeal Brief to explain the differences between the claimed subject matter with U.S. Pat. No. 6,314,533 ("Novik") being added as a secondary reference for rejecting claims based 70-73, 76, 77, and 91 on Cohen, Smith, and Novik. Again, prosecution was reopened and the Smith reference was withdrawn and all anticipation rejections have been withdrawn. However, all claims are rejected as being obvious in light of Cohen in view of U.S. Pat. No. 6,584,491 ("Niemi"). Briefly, the primary reference of Cohen has been cited since early in the prosecution of this application with Niemi being recently added to try to overcome the deficiencies of Cohen and to provide teaching that was not found in Smith.

Claim Rejections Under 35 U.S.C. §103

In the Office Action dated November 1, 2006, claims 1-4, 6-12, 14-22, 33-40, 43, 62-65, 67-69, 74, 75, 78-80, 85, 86, and 94 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,477,585 ("Cohen") in view of U.S. Pat. No. 6,584,491 ("Niemi"). Applicants traverse this rejection based on the following remarks.

Claim 1 calls for a filter to be provided "on said subscriber nodes," and this filter acts to "process a plurality of events published on said event channel to identify said event as a matching event." With this configuration, the subscriber node does the filtering of events published or made available on a linked event channel, i.e., the network uses subscriber-side filtering. In contrast, Cohen teaches supplier or publisher-side filtering. Hence, the network of claim 1 is not shown or suggested by Cohen.

As discussed in the several of Applicants' Amendments and Appellants' Appeal Brief, with regard to claim 1, the Office Action cites Cohen at col. 5, lines 48-49 for teaching the event channel of claim 1 and at col. 6, line 7 (consumer-side EMS filter) and col. 6, lines 19-22 for showing a filter to identify an event on the subscriber node. Applicants disagree with this construction of Cohen. At col. 5, lines 55-61 with reference to Figures 2 and 3, Cohen makes it clear that its event distribution method involves providing a single host computer running an event management system (EMS 22), i.e., the supplier or publisher that performs the filtering. According to Cohen, clients must subscribe to the EMS 22 and also define filters that are stored in a filter database 46 at the device hosting the EMS 22 (i.e., not on the event consumers 26a-26n). Also, with reference to Figure 3, the event channel is shown to be part of the EMS 22. Based on these arguments, Cohen fails to shown "a filter on said subscriber node" because as can be seen in Figure 3 the event consumers 26 are remote to the EMS 22 which stores the filters in database 46.

The September 21, 2005 Office Action, the March 8, 2006 Office Action, and the most recent November 1, 2006 Office Action, all indicate that the Examiner agrees with this argument that Cohen fails to anticipate the filter feature of claim 1. Previously, Smith was cited for providing this teaching, but this reference was withdrawn. Now, the Examiner has cited Niemi for teaching

"an event notification system wherein an event filter mechanism is located on an event subscriber" with its "FilteredEventConsumer 38" as shown in Figure 2 and discussed at col. 6, lines 3-56. Applicants disagree with this construction of Niemi because this reference teaches that the filters are located on one or more servers in a distribution system or network but fails to show they are located on the subscriber node running a consumer or subscriber application.

With reference to Figure 1 and associated text in col. 4, Niemi teaches the use of an event distribution system 14 that is used to trace event messages as they flow from a source process 12 to a destination consumer 18. The destination consumer 18 may be likened to the application of claim 1, and so, for Niemi to overcome the deficiencies of Cohen, Niemi needs to teach that its filters are provided on the same node as the destination consumer 18. From a review of Figure 1 and Figure 2, the reference fails to provide such teaching. Specifically, in Figure 1, Niemi teaches the use of "a distributed plurality of filter processes 16 configured for receiving the message (m) and selectively passing the message for reception by a destination consumer process 18" (see, col. 4, lines 1-14). The filter processes 16 are shown to be a part of the event distribution process (EDS) 14 and are not shown in Figure 1 to be on the same node as the destination consumer 18.

Likewise, Figure 2, which is cited by the Examiner, also fails to show the filter processes 16 being provided upon the node of the event consumer 18. Figure 2 is described by Niemi at col. 5, lines 32-42, as illustrating "in detail exemplary interfaces, illustrated using reference numeral 24 in FIG. 1, that are established between a source process 12, an event consumer 18, and a filter 16 of the event distribution system 14....including the distributed processes 16a, 16b, 26 within the EDS 14" (emphasis added by Applicants). At col. 5, lines 59-61, Niemi states that the "processes within the filter 16 may be distributed

amongst a plurality of different servers" that make up the EDS 14, but there is no teaching or suggestion that the filters should be located at a node running a destination consumer 18.

Now turning to the specific citation provided by the Examiner, the FilteredEventConsumer 38 is not the filter in the Niemi system that processes event messages but instead is an interface mechanism or object. The object 38 is used (as described in col. 6 of Niemi) as being used to register the filter 16 and binding the consumer process 18 to a particular filter(s) 16. As discussed in col. 6, lines 20-34, the event consumer 18 registers "one or more filters with the EDS 14" and "the filter process 16 obtains the Java Boolean filter from the event consumer 18 in step e3 during registration of the callback." Hence, the event consumer 18 apparently can define a filter for a filter process 16, but all the figures and text of Niemi indicate that the filter processes 16 remain part of the EDS 14, which is not shown or suggested to be provided on the node of destination consumer 18. As a result, Niemi fails to overcome the deficiencies of Cohen, and Applicants respectfully request that the rejection of claim 1 be withdrawn and the claim allowed.

Further, Cohen fails to teach "an application...opens said event channel at said subscriber node." The Response to Arguments in prior Office Actions failed to address this argument for allowing claim 1 over Cohen, with the most recent Office Action simply stating that the new rejection makes all prior arguments moot. However, Niemi is not cited for providing this teaching, and Applicants request the Examiner to specifically address this additional reason for allowing claim 1 over Cohen.

The Office Action cites Cohen at lines 48-49 of column 5 for providing this teaching. Cohen, at this citation, states "Communications through the event channel are "asynchronous" in that they may be provided to the event

consumers at any time." Cohen does NOT teach that an application at the subscriber node that defines the filter and its fields also acts to open an event channel provided between the publisher and the subscriber nodes. If the event consumers of Cohen are taken to be the subscriber nodes, there is no discussion in Cohen that an application on these nodes acts to open an event channel. From col. 5, lines 14-37, it appears that communications between the EMS/event suppliers and the event consumers is controlled by the EMS. For this additional reason, Cohen fails to teach or suggest each and every limitation of claim 1, and as noted by the Examiner, Niemi is only cited for teaching the location of a filter.

Claims 2-4 and 6-11 depend from claim 1 and are believed allowable as depending from an allowable base claim. Claim 94 also depends from claim 1 and is believed allowable as Cohen fails to teach a plurality of subscriber nodes each including a filter defined by an application on the node, opening an event channel over a communication link to each such node, and using the filter at each node to identify matching events for receipt by the application.

Regarding independent claim 12, the Office Action relies on Cohen and Niemi to reject the claim in a manner similar to that of claim 1. Therefore, the reasons for allowing claim 1 over Cohen and Niemi are applicable to claim 12. Additionally, Cohen fails to teach a queue on the same node that assigns the filter and receives and uses matching events. In contrast, the queue 47 of Cohen is shown to be part of the EMS 22 and is placed on single host within a network as shown in Figures 2 and 3 (e.g., not on the consumer nodes 26). This additional reason for allowing claim 12 was provided at least in the Pre-appeal Brief Request for Review and the Appeal Brief, but the Examiner has not addressed this argument in the Response to Arguments in any of the Office Actions (i.e., the argument that Cohen's event log is not on the node of the

application). For this additional reason, the rejection of claim 12 based on Cohen is not proper and should be withdrawn. Niemi does not overcome these additional deficiencies of Cohen with respect to claim 12. Specifically, Niemi does not teach that the matching events are placed on a queue on the node of the destination consumer 18 by its filter elements 16 (which appear on other servers), and the Examiner did not cite Niemi for overcoming this problem with Cohen. As a result, the combination of Cohen and Niemi does not support a rejection of claim 12, and claims 12 and claims 14-22, which depend from claim 12, are believed allowable.

Independent claim 33 calls for opening an event channel at a node that provides a shared communication path on a communication link and to subscribing to receive events at the node over the event channel. Cohen fails to teach these features as it describes (as discussed with reference to claim 1) running an EMS on a single node and then distributing events to specific nodes after filtering on the EMS node. The method of claim 33 is very different in that it supports fully asynchronous communication over the event channel without requiring an event publisher to provide addresses of receiving nodes as opposed to the API 32 and service 22 of Cohen as described with reference to lines 43-46, col. 5.

The method of claim 33 includes running an application on the node, receiving and processing an event at the node over the event channel, and then when a match is determined "at said node" passing the received event to the application on the node. Distribution out of the node is not required after filtering as is the case in the Cohen method. For these reasons, claims 33 and claims 34-40 and 43, which depend from claim 33, are believed allowable over Cohen, and Niemi fails to overcome these deficiencies.

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Independent claim 62 was rejected in the final Office Action for the same reasons as provided for rejecting claim 1 (and its dependent claim 15), and the reasons provided for allowing claim 1 over Cohen and Niemi are applicable to claim 62. Further, Cohen and Niemi fail to teach or suggest granting access to an event channel on a communication link and associating such access or permission to an application running on a node network. The Office Action cites Cohen at line 59, col. 12, line 12, col. 14, and lines 34-35, col. 5 for showing these elements not presented in claim 1. Appellants could find no teaching of this limitation and particularly, of associating such access to an application running on a node network in Cohen. Further, Cohen fails to show creating a name context for the event channel as called for in claim 62, with the cited portion of Cohen at col. 11, line 28 simply referring to "the EMS event channel" but providing no teaching of providing a name context for a created event channel that, as will be appreciated, can later be used for providing events to subscribers of a particularly named event channel. Hence, Cohen and Niemi do not support a rejection of claim 62 or claims 63-65 and 67-69, which depend from claim 62, and these claims are believed in condition for allowance. The final Office Action provided no response to these arguments regarding claim 62.

Regarding independent claim 74, the Office Action again states that claim 74 is the same method as claims 1, 13, 14, and 62 and rejects it for the same reasons as these claims. However, claim 74 includes differing limitations not included in claims 1, 14, and 62 (with claim 13 being cancelled prior to the filing of the Appeal Brief). Specifically, claim 74 calls for "marking a remote event control block object in an event control block according to said filter control message," and none of the claims mentioned by the Examiner include this limitation. For example, claim 1 does not discuss a filter control message, an event control block, or a remote event control block object (or marking such an

object). Claim 14 states "wherein said event server further includes an event control manager to control said event control block" and this language does not include the limitations of claim 74. Claim 62 discusses an event control block and sending a filter control message but does not including "marking a remote event control block object in an event control block according to said filter control message." A proper obviousness rejection of claim 74 requires a separate rejection indicating where each of its elements are shown or suggested in Cohen and/or Niemi. This has not been provided in any of the Office Actions to date. Hence, the Examiner has failed to make out a proper case of obviousness because the Examiner has not provided explicit citations to Cohen or Niemi where each and every limitation in the claim is shown or made obvious. As a result, claim 74 and claims 75, 78, and 79, which depend from claim 74, are believed in condition for allowance.

Independent claim 80 was rejected in the Office Action for the reasons provided for rejecting claim 1, and hence, the reasons provided for allowing claim 1 over Cohen and Niemi are believed applicable to claim 80. Specifically, Cohen fails to teach using a client application for opening an event channel on the same node as is running the application and receiving and filtering events on the channel with a filter on the application's node. Further, Cohen fails to teach opening such an event channel in read or write modes as called for in claim 80, which is not required in claim 1. Hence, the rejection of claim 1 does not state a prima facie case of obviousness for rejecting claim 80 as the limitations differ. The portions of Cohen cited by the Examiner (i.e., col. 9, lines 41-62) do not mention opening an event channel in a read mode or in a write mode or that such opening can be done by a client application on a node of a network. Based on these arguments, claim 80 and claims 85 and 86, which depend from claim 80 are not shown or suggested by Cohen, and the rejection of these claims

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should be withdrawn. The final Office Action does not address these arguments for allowing claim 80.

Further, in the Office Action, claims 70-73, 76-77, and 91 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cohen in view Niemi further in view of previously-cited U.S. Pat. No. 6,314,533 ("Novik"). This rejection is traversed based on the following remarks.

Referring to independent claim 70, the Office Action states that Cohen fails to teach building its filters from a "binary tree" but cites Novik at col. 2, lines 56-59, Figure 6, and at col. 14, lines 40-53 for providing teaching building filters from "search trees" (as called for in claim 70). However, at this citation, Novik states "Preferably, the filtering of events would be performed at the event provider itself, such that any events that are not requested by a subscriber would be discarded at the event provider." There is no teaching at this citation of building a filter from a plurality of search trees, of selecting a search tree from said filter, and comparing said event with said search tree as called for in claim 1.

Further, Novik teaches similarly to Cohen that filtering is performed at the event supplier or publisher. In contrast, claim 70 calls for the building, selecting, and use of the filter to be performed at the node that is also used for "receiving an event at said node." Hence, the filtering (and its construction) are performed at the event consumer or subscriber rather than at the event supplier or provider node as taught by both Cohen and Novik. Niemi as discussed with reference to claim 1 also fails to teach filtering at a node having its destination consumer 18 but instead shows filtering processes 16 in a distributed EDS 14. Since these references fail to teach or suggest each and every limitation of claim 70 and actually teach away from its limitations, claim 70 is not made obvious by the combined teachings of these three references.

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Claims 71-73 depend from claim 70 and are believed allowable for at least the reasons provided for allowing claim 70.

Claims 76 and 77 depend from claim 74 and are believed allowable as depending from an allowable base claim. Further, Novik fails to overcome the deficiencies of Cohen and Niemi discussed above with reference to claim 74.

Independent claim 91 is directed to a computer program product with limitations similar to that of claim 70. The reasons provided above for allowing claim 70 over Cohen, Niemi, and Novik are believed applicable to claim 91.

Conclusions

In view of all of the above, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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